An Undescribed Species of Alnus. — Some years ago I collected fruiting specimens of a large alder in swampy woods, along the edge of a brook on the coastal plain of Staten Island, near Grant City; these were at the time referred to *Alnus incana*, though with doubt, inasmuch as the height of the tree seemed much too great for that species, and the large, strongly-pointed leaves seemed also to be different from those of any specimens of *incana* that I had seen. The woods in which this tree grew were cut away soon after my collection was made, and, though a search was made in the vicinity for other plants, I was never able to find another specimen. I have been confident for a long time that it represented a species distinct from both the European *Alnus incana* and its American representative, *Alnus glauca* Michx., which I think very likely to be distinct from *incana*. Mr. Bicknell has found this summer shrubs with foliage evidently the same as my tree from Grant City, in similar situations in southeastern Long Island, so I now feel warranted in proposing this apparently local plant as an undescribed species.

Alnus Noveboracensis sp. nov.

A shrub or small tree, sometimes 8 m. tall, with a trunk 1 dm. thick. Young twigs and petioles densely pubescent; leaves oblong to obovate, acute at both ends, 12 cm. long or less, sharply irregularly serrate, very densely pubescent on the prominent veins beneath, otherwise glabrous or nearly so, dark green above, paler green but not at all glaucous on the under side; ripe pistillate aments numerous, oblong, 1.5 cm. long, very short-stalked; nut oval, about one half longer than wide, narrowly margined.

Woods and thickets near the coast, southeastern New York. Type from Grant City, Staten Island.

N. L. Britton.

PROCEEDINGS OF THE CLUB

Tuesday, May 10, 1904.

This meeting was held in the library of the New York College of Pharmacy and 15 persons were present, Rev. L. H. Lighthipe presiding.

Resignations from the Club were read and accepted from Mr. Maturin L. Delafield, Jr., Mr. W. C. Alpers and Mr. E. S. Miller. Mr. Miller was elected to corresponding membership.

The resignation of Prof. F. S. Earle as recording secretary was read and accepted. The vacancy was filled by the election of Mr. E. W. Berry.

The first paper on the scientific program was by Dr. H. M. Richards, entitled "Notes on the Peat Bogs of Ireland." The peat bogs have been variously estimated as covering from one fifth to one tenth of the surface of Ireland; probably the larger estimate is excessive.

Dr. Richards' observations at several points on the west coast including Donegal and Achill Island were given. The basis of the bogs is not always the same, but in some cases it is glacial gravel. The thickness of the peat varies from 1 or 2 ft. to 40 ft., but no exposures of more than 25 ft. thickness were seen. On the slopes and hillsides the peat is thinner but becomes accumulated in the lower situations so that the thickness of the bog does not necessarily show its age. Bogs have been known to burst, as in Sligo in 1831, and to do considerable damage to houses below them.

The peat is mostly vegetable matter and yields very little ash. According to Lyell its formation is supposed to be due to the low temperature preventing complete decomposition of the vegetable matter. Peat is not formed in warm countries and the additions to the beds are made in cold weather. In the bogs seen there was standing water only in the holes and ditches but the soil was wet and soggy. Comparatively little of the bog oak is found. Some of the stumps are in place, showing that they are not driftwood carried into the bog. The dark color and hardness of the bog oak is said to be due to the action of a diatom, a *Melosira*, and the formation of bog iron ore is supposed to be due to the same diatom.

It was suggested that part of this action may be due as well to *Crenothrix*. There is little of vegetable remains except at the top of the bog. *Sphagnum* makes up a comparatively small part of the peat bog vegetation as seen in the localities men-

tioned, and sphagnum peat is not so highly prized for fuel. A small *Carex* seemed to be the principal peat-forming plant. Two species of *Drosera* grow in profusion and the heather and ling thrive very well and contribute considerably to the peat. *Pteridium* and several small ferns are rather common. *Sphagnum* and many fresh water algae grow in the holes and ditches, and from such places West has made fine collections of algae, especially desmids. Peat bog soil has been found to be very sterile and at least two years are required to reclaim it, the method including throwing it up and exposing to the air, and the application of fertilizers and lime. The cause of this sterility is not clearly understood, and is perhaps due to the lack of some of the necessary mineral salts and to the fact that the nitrogenous materials may not be in the best available form for plant nutrition. Some of the reclaimed peat bogs are very fertile lands but if neglected they quickly run back to their sterile condition. If cultivation ceases the *Pteridium*, heather and carices come back in a few years.

Discussion developed the fact that recent studies suggest that the European *Drosera rotundifolia* is distinct from the American species so called.

The second paper of the evening was by Dr. Marshall A. Howe, under title of "Remarks on some West Indian Marine Algae." The remarks were based chiefly upon specimens collected by the speaker in March and April of the present year on the Florida Keys and the Bahama Islands, supplemented by specimens from Bermuda and Porto Rico and also by some obtained on a previous visit to Key West. The discussion was confined to the families Caulerpaceae and Codiaceae, members of the order Siphonales and class Chlorophyceae. The family Caulerpaceae, according to the more recent writers, consists of the single genus *Caulerpa*, with probably sixty or more well-defined species, including plants of a great diversity of form and habit. Some of the earlier phycologists, impressed by these evident differences, suggested generic segregations, and it is probable that some of the proposed genera are as well limited as are many of the current genera among the Agaricaceae. There

is, however, not such an unwieldy number of species to afford an excuse for generic splitting, as is the case with the agarics, and there is practically nothing but habit and external form to lay hold of in limiting species and attempting generic segregations. Specimens were shown illustrating the principal sectional or subgeneric groups.

The Codiaceae were illustrated by specimens of *Codium*, *Avrainvillea*, *Penicillus*, *Rhipocephalus*, *Udotea* and *Halimeda*. The genera *Penicillus* and *Rhipocephalus* are especially well represented in the Bahama Islands. Four species of *Penicillus* and two of *Rhipocephalus* were shown, all of which were found growing within a mile radius in Bemini Harbor, Bahamas. One of these is supposed to be the species described from the Bahamas by Decaisne in 1842 as *Penicillus oblongus* and apparently not met with in the meantime. This species was transferred to the genus *Rhipocephalus* by Kuetzing. In reality, it stands between the genera *Penicillus* and *Rhipocephalus* and weakens the distinction between them. It is easily a *Rhipocephalus* when it is young, but as it gets older becomes more like a *Penicillus* and might then be casually passed by as a form of the common *Penicillus capitatus*. The head, however, is usually more oblong than in that species, the branching of the threads of the brush is characteristic, and the arrangement of the threads in the apical or younger part of the brush is always distinctive.

Among the species and forms of *Halimeda* exhibited was one from the Florida Keys which is soon to be described as a new species. This has been confused with *Halimeda Tuna* by both American and foreign students of the genus, but is readily distinguished from that and other described species, by the fact that the surface of each cortical tube or "cell" is drawn out into a strong spine.

William T. Horne,
Secretary pro tem.

NEWS ITEMS

Mr. George R. Lyman, of the department of botany of Dartmouth College, has been advanced to the rank of Assistant Professor.